



15th International Conference on Computers Helping People with Special Needs

## **OLA! A Scenario-Based Approach to Enhance Open Learning through Accessibility**

Tim Coughlan, Alejandro Rodriguez-Ascaso, Francisco Iniesto, Anne Jelfs  
The Open University and Universidad Nacional de Educación a Distancia (UNED)



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# INTRODUCTION AND RELATED WORK

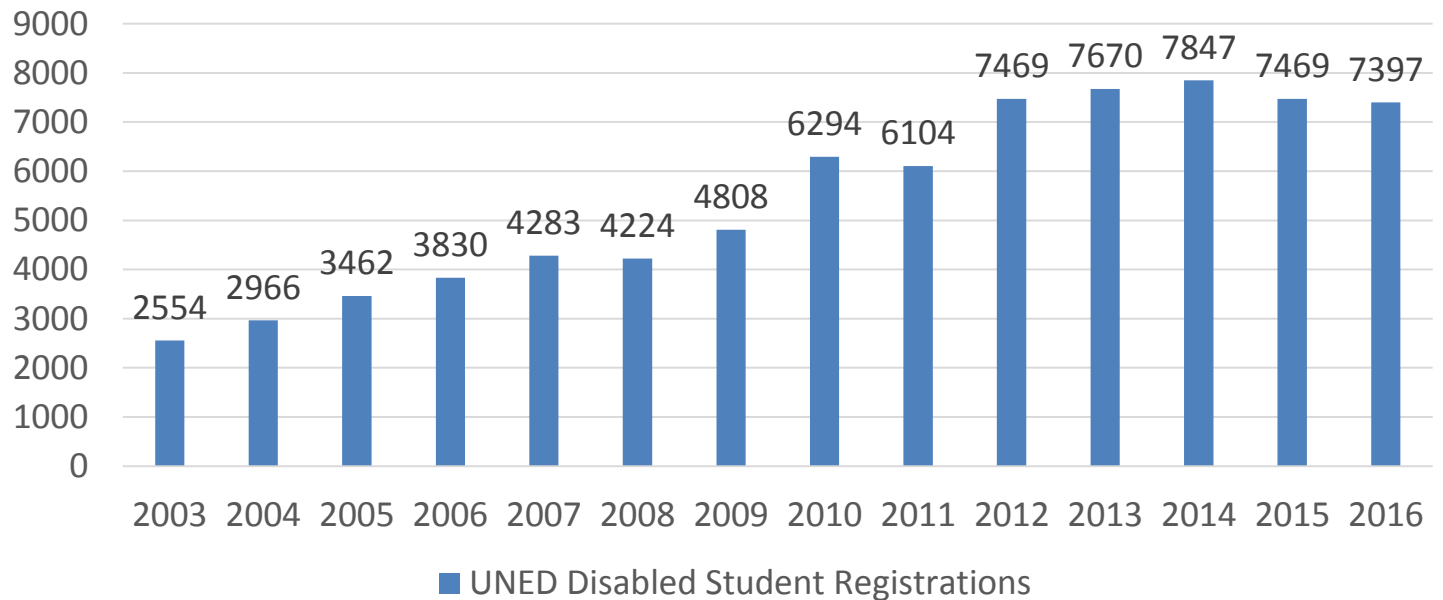
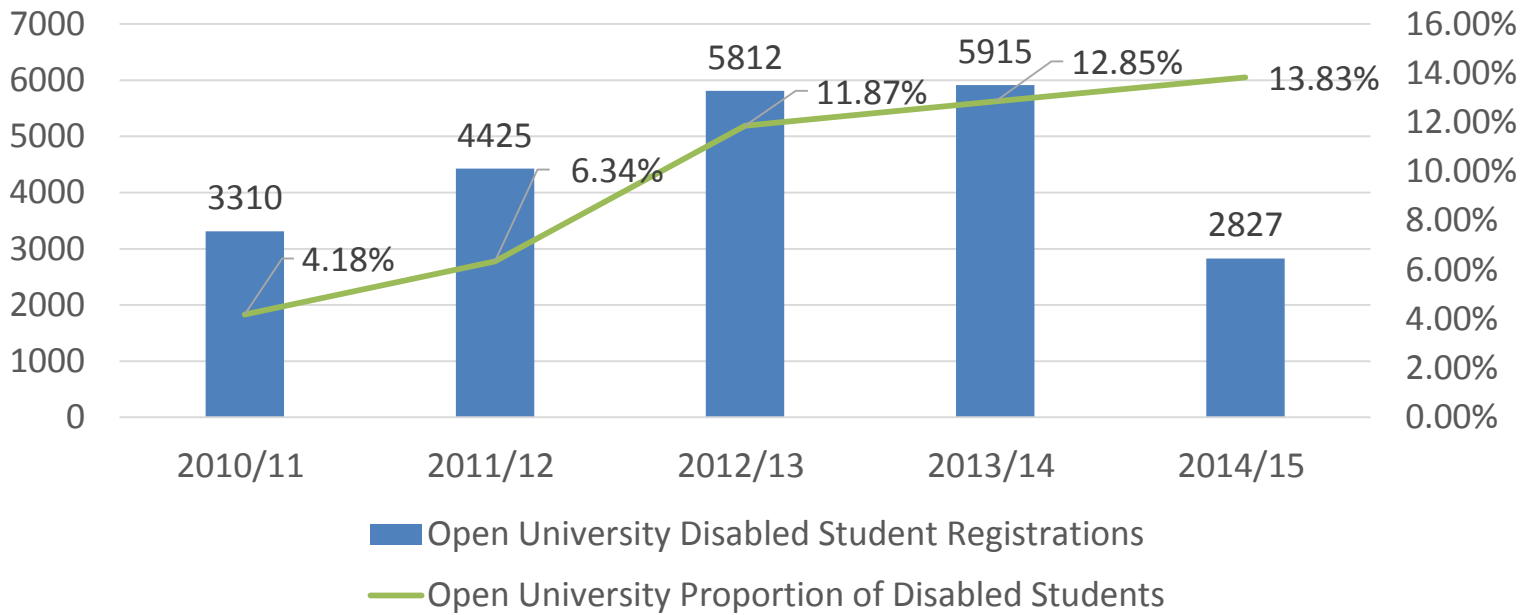
- **Open Educational Resources (OER)** and **Massive Open Online Courses (MOOCs)** offer new opportunities for learners who face limitations of
  - Cost
  - Time
  - Distance
  - Entry requirements
- This new **educational paradigm** has not developed with an inherent capacity to **attend to the needs of disabled students**
- This poses a serious problem to its foundation principles of being **open to all**

## **Lack of support for disabled students in open learning :**

- Poor compliance of **platforms and contents** with web accessibility standards
- Lack of **information about accessibility preferences** of students
- **Barriers of e-commerce** or biometric techniques
- Accessibility barriers of **third party software and social networks**

Distance education in general attracts more disabled students than traditional education, and this trend is emphasised further in open education:

- **8% in UK universities**
- **12%** of students of the **Open University** are disabled
- **40%** of Spanish HE students with disabilities were enrolled at **UNED**
- **16%** of the users of open resources published by the **OU (via iTunesU, YouTube and OpenLearn)** declared a disability



# Open Learning and Accessibility (OLA!)



The Open University



- Two of the largest universities in Europe.
- Very active in the production of OER and MOOCs
- Have a strong commitment to diversity and equality in education.



The Open University logo and course details: FREE online course, Duration: 2 weeks, 3 hours per week.



CURSOS • Materiales • NOTICIAS • Acerca de UNED Abierta • FAQs

Article header: Mini-videos docentes modulares: un elemento crítico en el diseño de un MOOC. Includes a red banner image and social media links.



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Hero section with a smartphone on a rock. Includes promotional cards for 'World Autism Awareness Day', 'DO SOMETHING GREAT', 'Free course: Succeeding in a digital world', and 'What was the Easter Rising?'.

## **Focus on self-directed learning with open materials:**

- MOOCs, OERs, or other structures where the learner has little to **no individual human support** for their learning
- This is in contrast to situations with expectations for individual support to **make adjustments, access support services, and to tutor the student**

## **To advance support for disabled students in these situations:**

- It is necessary to unpack the **specific issues presented in the creation of accessible open learning**
- Take into account **previous research** on the accessibility of online and distance learning in general

## **We aim:**

- To **understand the social, contextual and organisational issues** behind these inadequacies
- To learn about **how the requirements to support learners with disabilities in open learning differ** from those devised for other learning situations
- To propose **interventions and best practices** that can be developed to improve the situation

# METHODOLOGY AND MATERIALS

Understanding complex socio-technical processes -> the creation of accessible open learning, research methods:

- **Scenario-based interviews** with a diverse group of stakeholders
- Develop an understanding of **key themes** in creating accessible open learning.

Through the interviews:

- Descriptions of **existing organisational approaches**
- Potential **best practices**
- **High-level requirements** for accessible open learning.



Evolution of the scenarios produced within the **European Unified Approach for Assisted Lifelong Learning project (EU4ALL)**.

- The original scenarios were based on EU4ALL use cases
- The scenarios were used to define the evaluation tasks at the UNED pilot site, which involved more than one hundred users.



# METHODOLOGY AND MATERIALS

The current scenarios aim to illustrate 5 topics of open learning:

- 1. The contexts in which students learn.**
- 2. Their processes of finding and selecting open learning resources.**
- 3. Administrative activities such as joining or paying for courses.**
- 4. Processes of communication and collaboration during learning.**
- 5. The content and activities included in courses, including assessments.**

# METHODOLOGY AND MATERIALS

We first ask participants to rewrite the scenario from their own perspective:

- **Staff members** -> relevant to their own job role - ways in which this role could be refined to provide better support to the learner in this scenario.
- **Learners** -> discuss whether they could describe their own experience of such a situation and - there is anything that could further satisfy their needs.

**All interviewees** have studied or worked at the **OU or UNED**, and have previous experience with open learning.

# FINDINGS

## Emerging themes:

- **Student experience**

“you are completely right, it is important to me but I never take it into account. I take for granted that courses are not accessible, but in case a course is attractive, I will enrol in it, and fend for myself, even if I needed to ask for help to people I live with”

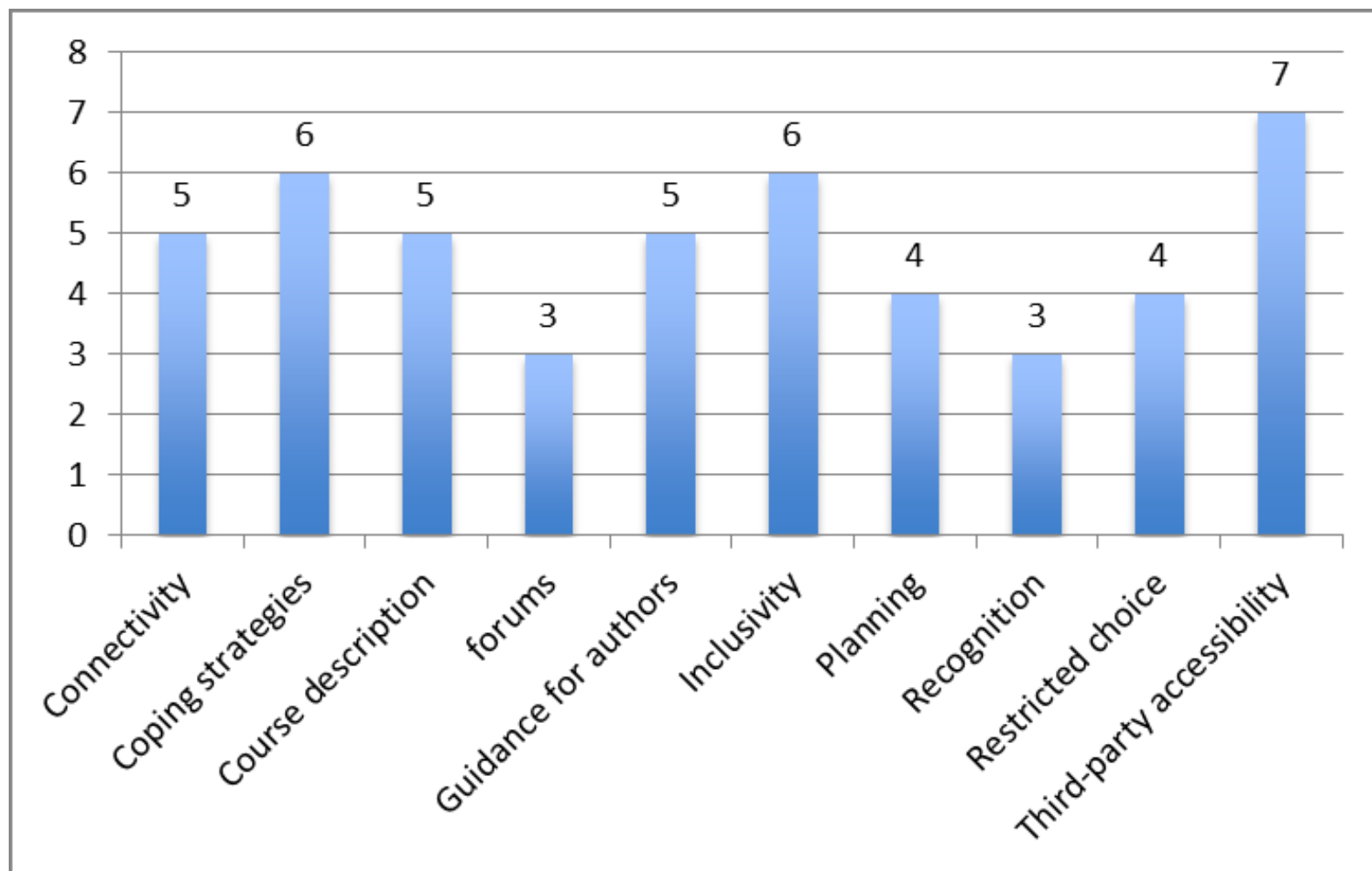
- **Responsiveness**

“During a MOOC course, we might receive 300 IT support requests, most of them about accessibility, navigation, awareness, how to get through, download, etc. The platform and its resources should be clearer for the students, but this would require more time, more resources, which are currently limited”

- **Content re-use**

“There are more eBooks now, and some of them have a reuse policy. In case the staff in charge of a course want to use only a subsection of an eBook, they check that when it stands alone it is still understandable. Then, the targeted content is repack-aged and made available through the course platform”

## Most frequent tags:



# DISCUSSION

- **Stakeholders** -> importance of this issue in terms of learner experience, and of efficient provision of a high-quality service.
  - **Accessibility** should be considered when **evaluating services** and in **reference models** of open learning.
- **Accessibility in open learning** depends on an institutional agenda of inclusiveness, rather than on the availability of any single technology
  - A suitable agenda would influence **policies** providing the appropriate planning, as well as the **necessary human and material resources**

- **The re-use of educational resources across platforms and networks**, even if the original resources were produced with all the required accessibility features, is it possible to transport or adapt these features in a remixed resource “out-of-the-box”?
  - Appropriate **standards, technologies and procedures** for handling accessibility **metadata** for both the original and the **re-used/re-mixed objects** are in place within the platforms, which is not always the case.

- The forms of **human support** that provide responsiveness to accessibility issues in formal study are rarely provided for in open learning.
  - **Free or low-cost models** in open learning are on the one hand an opportunity for widening access to education, but they **often result in a lack of resources to support this access.**
- As **open learning can be used to provide a taster of an institution**, or of online learning itself to a person with disabilities who may be interested in formal study, how is this experience reflective of relevant formal learning?
  - **Can well-designed open learning facilitate skills and confidence building?**



# CONCLUSIONS AND FUTURE WORK

- ✓ To date we have **primarily explored the perceptions of staff**, rather of than the learners themselves.
- ✓ The project continues, and our **focus is now to interview a diverse sample of learners** and to **broaden the sample of staff** to cover other open learning institutions.
- ✓ The **scenario-based approach is useful to identify current challenges and practices**, and naturally leads to envisaging and discussing potential solutions.
- ✓ The use of **further participatory and user-centred design methods**, combined with appropriate **learning analytics** techniques, will support a continued grounding of this research in the practices and needs of stakeholders.



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Tim Coughlan<sup>1</sup>, Alejandro Rodriguez-Ascaso<sup>2</sup>, Francisco Iniesto<sup>1</sup>, Anne Jelfs<sup>1</sup>

<sup>1</sup>**Institute of Educational Technology. The Open University, United Kingdom**

{tim.coughlan, francisco.iniesto, anne.jelfs} @open.ac.uk

<sup>2</sup>**aDeNu research group, Department of Artificial Intelligence, Computer Science School, Universidad Nacional de Educación a Distancia (UNED), Spain**

arascaso@dia.uned.es



The Open University



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